

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above Amendment and the discussion below.

Applicants gratefully acknowledge the allowability of the subject matter of claims 2-5, 7-9 and 11-13, if those claims were amended to include the limitations of the base claim. Accordingly, Applicants have amended claims 2, 4, 5, 7, and 11-13 to be in independent form by incorporating the subject matter of either claims 1 or 10. The remaining claims 3, 8 and 9 depend from these independent claims.

Claims 1, 6, 10 and 14 were rejected under 35 U.S.C. §102 as anticipated by Davis et al. '686 or Richardson et al. '333. In response to this rejection, Applicants have canceled claims 1, 6, 10 and 14.

Additionally, Applicants have provided a new independent claim 15, which includes limitations from original claim 1 and dependent claim 6 with additional subject matter as supported in the specification at page 18, line 13 to page 20, line 1 as well as Figures 8A, 8B and 9.

According to independent claim 15 when the method employs Frequency Modulated Continuous Waves (FMCW) so that the frequencies change linearly with time, Doppler shift occurs between the transmitted signal and the received signal. When a Fast Fourier Transform (FFT) is performed on the Doppler signal, a vehicle target proceeding ahead can be extracted as a signal peak in the frequency range, as shown in Figure 9, to thereby provide for computation of the distance between the vehicle ahead and the subject relevant vehicle.

The reference to Davis et al. (U.S. Patent No.: 3,383,686) concerns a system for extending the range of a pulse echo detection system by transmitting double side band frequencies around a single carrier frequency. There is no disclosure in Davis et al concerning detection of a target by using the claimed FMCW method as supported in the specification or whereby the frequency is changed linearly with time to provide the Doppler shift between the transmitted signal and the received signal which may then be analyzed by FFT to provide an

extracted peak signal in order to compute the distance between the target and the subject vehicle.

The reference to Richardson et al. (U.S. Patent No.: 5,828,333) concerns Doppler radar with an oscillator having a spectrum at a carrier frequency with a control input and a spread spectrum modulator coupled to the frequency control input for spreading the spectrum of the transmitted signal. Once again, there is no disclosure in Richardson concerning the detection of the target by using FMCW as specifically defined in independent claim 15.

In particular, claim 15 specifies that the frequency of the transmitted radio wave is changed in a predetermined pattern with time in order to generate FMCW and that the signal processing device detects an abnormality of a received signal based on signals obtained by receiving radio waves transmitted at this predetermined pattern. As indicated above, this is supported in the specification at page 18, line 13 through page 20, line 1 shown in Figures 8A, 8B and 9.

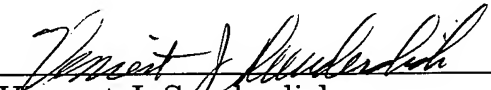
Accordingly, because of the distinguishing features between the claimed invention and the references, Applicants submit that claim 15 defines subject matter not shown or disclosed or made obvious by the references. In view of the incorporation of allowable subject matter into independent form, Applicants request that this application containing claims 2-5, 7-9, 11-13 and 15 be allowed and be passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056205.52780US).

Respectfully submitted,

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